

AUG 13 2018



100 GROVE ST. | WORCESTER, MA 01605

August 13, 2018

**PLANNING BOARD
GRAFTON, MA**

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**Subject: Proposed Department of Public Works Facility
48 Old Westboro Road
Special Permit, Site Plan and Stormwater Regulations Review**

Dear Joe and Maria:

We received the following documents on August 10, 2018:

- Correspondence from Weston & Sampson to the Grafton Town Planner and to the Grafton Conservation Agent dated August 8, 2018 re: Proposed Department of Public Works Facility, 48 Old Westboro Road, with attachments.
- Sheets C1.00, C3.00, C3.01, C3.02, C5.00, C5.01, C5.02, C7.04, C7.06, E1.01 and L1.00 of plans entitled Grafton, MA Department of Public Works Facility, Site Plan Review dated June 2018 and revised August 8, 2018, prepared by Weston & Sampson for the Town of Grafton. (11 sheets)

Graves Engineering, Inc. (GEI) has been requested to review and comment on the plans' conformance with applicable "Grafton Zoning By-Law" amended through May 14, 2018; Massachusetts Department of Environmental Protection (MassDEP) Stormwater Handbook and standard engineering practices on behalf of the Planning Board. GEI has also been requested to review and comment on the documents' conformance with applicable Conservation Commission "Regulations Governing Stormwater Management" dated May 2013 on behalf of the Conservation Commission. As part of our initial review GEI visited the site on July 18, 2018.

This letter is a follow-up to our previous review letter dated July 19, 2018. For clarity, the comments from our previous letter are *italicized* and our comments to the design engineer's responses are depicted in **bold**. Previous comment numbering has been maintained.

Our comments follow:

Zoning By-Law

1. *Ownership information of all abutting properties within 200 feet of the project property lines must be shown on the plans. The abutter information for 55 Old Westboro Road must be added to the plans. (§1.3.3.3.d.11)*
Acknowledged. Sheet C1.00 was revised to include the abutter information for 55 Old Westboro Road.

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2. *GEI has no issue with the design engineer's request to prepare the hydrological study in accordance with the Conservation Commission Regulations Governing Stormwater Management. (§1.3.3.3.e)*

Grafton's Regulations Governing Stormwater Management

3. *GEI has reviewed the Stormwater Management Plan and has no issues relative to compliance with the Grafton Stormwater Management Standards.*

Hydrology & MassDEP Stormwater Management Review

4. *GEI reviewed the hydrology computations and found them to be in order. The revisions to the hydrology computations are also in order.*
5. *The top of the impoundment berm for the infiltration basin and Rain Garden No. 1 was reasonably modeled as being at elevation 495.67 feet but the plans don't identify the proposed elevation of the top of the impoundment, and the proposed 494-foot and 495-foot topographic contours indicate that the top of the impoundment will be lower than elevation 495 feet. The proposed topography on the plans will need to be coordinated with the hydrology computations to provide sufficient freeboard above the 100-year water surface elevation. Likewise, for Rain Garden #2, the top of the impoundment was modeled as elevation 506.08 but Sheet C5.02 shows a spot elevation of 505.03 and what appear to be proposed 505 topographic contours close to each other on the south end of the rain garden (suggesting a narrow top-of-berm).*
Acknowledged. Rain Garden No. 1 was changed to a Subsurface Gravel Wetland and the former Rain Garden No. 2 was re-labeled as Rain Garden No. 1. The hydrology computations and the plans were updated and coordinated for the Subsurface Gravel Wetland. For the newly-labeled Rain Garden No. 1, the plans were revised such that they are coordinated with the hydrology computations. Adequate freeboard has been provided.
6. *Compliance with MassDEP Stormwater Handbook is reasonable.*

General Engineering

7. *Labels need to be provided for the proposed topographic contours on the inside of the rain gardens' impoundment berms.*
Acknowledged. Labels were provided on the revised plan sheets.
8. *The plans need to show the proposed tree line.*
Acknowledged. The proposed tree line was added to the plans.
9. *GEI performed a cursory review of the Traffic Study, with emphasis on sight distances. The Study appeared to be in order. The Study found adequate stopping sight distances and discussed minor clearing of underbrush and trees to improve intersection sight distances at the entrance/exit driveway. GEI concurs with the proposed tree pruning as noted on the upper section of Sheet C3.00 (clearing on both sides of the entrance/exit driveway and on the west side of the exit-only driveway), but the work should also include mowing of grasses and cutting of underbrush. The Study also found that the proposed facility will have a negligible effect on nearby traffic operations; we have no reason to dispute this finding.*

Acknowledged. The tree trimming note on Sheet C3.00 was expanded to also include trimming underbrush and mowing grasses.

10. *If Grafton DPW wishes to accommodate "low bed" trailer deliveries to the facility, then trailer clearance should be evaluated where the exit-only driveway intersects Old Westboro Road; the change in grade may be too abrupt.*

Acknowledged. Sheet C5.00 was revised to include a ground-clearance and turning maneuver analysis for a "low-boy" trailer to enter and exit the site using the southern entrance/exit. GEI has no issues with the analysis or the use of the southern entrance/exit as the point of egress.

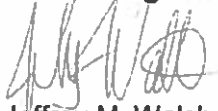
General Comments

11. *GEI did not review the fire cistern nor the architectural plans.*

12. *GEI has not reviewed the plans with respect to the fuel storage and dispensing system. We understand that the Grafton Fire Department will review the proposed fuel storage and dispensing design.*

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,
Graves Engineering, Inc.



Jeffrey M. Walsh, P.E.
Vice President

cc: James Fair, P.E.; Weston & Sampson
Andy Deschenes; Weston & Sampson
Paul Courmoyer; Grafton DPW